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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,383	02/05/2004	Daqing Che	PT2087000	3324
23607 7590 12/02/2008 IVOR M. HUGHES, BARRISTER & SOLICITOR, PATENT & TRADEMARK AGENTS 175 COMMERCE VALLEY DRIVE WEST SUITE 200 THORNHILL, ON L3T 7P6 CANADA				
EXAMINER HUGHES, ALICIA R				
ART UNIT 1614		PAPER NUMBER		
MAIL DATE 12/02/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/771,383

Applicant(s)

CHE ET AL.

Examiner

ALICIA R. HUGHES

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of the Claims

Claims 1 and 3-24 are pending and the subject of this Office Action. Applicants cancelled claim 2 in the response of 24 July 2008.

Applicants' arguments and amendments filed on 24 July 2008 in response to the non-final rejection filed by this Office on 08 February 2008 have been fully considered, but they are not deemed to be persuasive. Rejections and objections not reiterated from previous office actions are hereby withdrawn. The following rejections are reiterated and expounded upon, and they constitute the complete set presently being applied to the instant application, hereby making this rejection FINAL.

Claim Rejection – 35 U.S.C. §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-24 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,087,511 [hereinafter referred to as "Lin et al"] (the reference is being considered in its totality)¹.

The teachings of Lin et al as set forth in this Office's Action of 08 February 2008 are incorporated herein by reference in their entirety.

¹ Lin et al is cited on Applicants' IDS.

Applicants argue that Lin et al teaches away from the instant invention, because “the step reversal addition (adding the atorvastatin salt solution to the calcium chloride or calcium acetate solution), as well as Applicants’ direct one step process versus the two step process found in the ‘511 Patent is not obvious to a person of ordinary skill in the art” (Remarks of July 18, 2008, pages 11-12). However, these arguments are not persuasive, most notably, because of the open claim language comprising encompasses the scope of the full invention. Applicants also note unexpected advantages over the prior art. However, in the absence of clear evidence of record, this appears to be but an allegation lacking factual support.

As noted prior, Lin et al disclose a novel process for making amorphous atorvastatin hemi calcium salt, noting that the same is useful as an inhibitor of HMG-CoA and therefore, useful in the treatment of hypercholesterolemia (Col. 1, lines 13-21). The disclosed process comprises a beginning with a mixture comprising atorvastatin lactone and methanol reacted with an aqueous solution of sodium hydroxide to form an open-ring sodium salt. The organic layer is discarded and the aqueous layer is extracted with MTBE. When the organic layer is again discarded, the aqueous solution of the sodium salt is heated and to the solution added calcium acetate hemihydrate dissolved in water. Shortly thereafter, the mixture is seeded with a slurry of crystalline atorvastatin. Some time thereafter, the mixture is heated, then cooled, filtered, and washed with a solution of water and methanol followed by water. The resulting atorvastatin solid is dried under a vacuum to give the crystalline form, and through a process disclosed in Example 2, the crystalline form because amorphous atorvastatin (Col. 5, lines 11-65)..

The adjustment of particular conventional working conditions such as quantity of seeds of amorphous atorvastatin calcium relative to the weight percent of atorvastatin lactone and the

stoichiometry of sodium hydroxide relative to the same, and the timing of the hydrolysis reaction are mere matters of routine optimization and judicious selection well within the purview of one of ordinary skill in the art.

One of ordinary skill in the art would have been motivated to perform the instant invention based on the disclosures in Lin et al because as noted therein, although amorphous atorvastatin solids were known to exist in advance of the advent of crystalline atorvastatin, “the production of amorphous atorvastatin by the previously disclosed processes was not consistently reproducible (Col. 1, lines 61-65). Further, it was also known that the bioavailability patterns of drugs often differ based on whether their forms are amorphous or crystalline, for example, making it desirable to have a procedure for converting the crystalline form to the amorphous form (Col. 2, lines 1-7).

In view of the foregoing, it would have been *prima facie* obvious to one of ordinary skill in the art to prepare amorphous atorvastatin calcium by the hydrolysis of atorvastatin lactone to form atorvastatin sodium salt, to suspend the same into a solution of aqueous calcium acetate, and then, to isolate and dry the same to form amorphous atorvastatin calcium salt and that the same would be effective in the treatment of hypercholesterolemia.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Hughes whose telephone number is 571-272-6026. The examiner can normally be reached from 9:00 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, can be reached at 571-272-0718. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Public PAIR only. For information about the PAIR system, see <http://pair-direct-uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alicia R. Hughes/
Examiner, Art Unit 1614

/Raymond J Henley III/
Primary Examiner, Art Unit 1614